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ORIGINAL PAPER

The Effect of Spiritual Care on Perceived Stress and Mental Health Among the Elderlies Living in Nursing Home

Mohammad Heidari[1] · Mansureh Ghodusi Borujeni[2] · Shokouh Kabirian Abyaneh[3] · Parvin Rezaei[4]

Abstract

The aim of this study was to investigate the effect of spiritual care on the perceived stress and mental health of the elderlies living in nursing home in Isfahan. This is a semi-experimental study with pretest and posttest design with control group. Ninety eligible elderlies living in the nursing home were divided into intervention and control groups through census and random allocation. The interventional spiritual care was conducted for the intervention group for 90 days. After conducting the spiritual care, the majority of the elderlies (62.22%) in the intervention group had a low perceived stress level and the majority of the subjects (64.44%) in the control group had a high perceived stress level. Therefore, after performing spiritual care, a significant difference was observed at the perceived stress level of the two groups ($X^2 = 3.22$ and $P = 0.001$). The results of mental health level indicated that the mean score of the general health questionnaire was ranged between 10.95 and 27.2. After performing care, a significant difference was observed in mental health level of both groups, and 31.11% and 53.33% of the participants were suspected to general disorder in the intervention and control groups, respectively. Based on the results, there was a significant difference in the mental health level of both groups after the implementation of spiritual care ($X^2 = 6.56$ and $P = 0.001$). Further, a significant negative correlation was found between the perceived stress and mental health ($r = -0.241$ and $P = 0.01$). Considering the spiritual health as one of the health dimensions influencing the psychosocial variables of elderlies seems necessary. Policymakers and planners of health area contribute to the improvement of mental health level by using comprehensive care approach with an emphasis on the spiritual dimension of care for the elderly people.

✉ Mansureh Ghodusi Borujeni
mghodosi@iauabadeh.ac.ir

[1] School of Nursing and Midwifery, Shahrekord University of Medical Sciences, Shahrekord, Iran

[2] Young Researchers and Elite Club, Abadeh Branch, Islamic Azad University, Abadeh, Iran

[3] Shahid Beheshti University of Medical Sciences, Tehran, Iran

[4] Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

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Introduction

Aging is a natural process and one of the stages for human development. The aging phenomenon in societies is due to the improvement of living conditions, health care, and the enhancement of life span and life expectancy (Heidari et al. 2016). According to the report of the World Health Organization (2012), the population of people over 60 years old is going to be doubled during 2000–2050. According to the latest census in 2011, the population of people over 60 years old in Iran was 6,159,676, namely about 8.21% of the total population, which has an increasing trend in comparison with the 2006 census results (Heidari et al. 2018). The enhancement of the elderly age leads to the changes in different dimensions such as physical, mental, and rational weakness, and various diseases require a special attention in these areas(Association 2013; Heidari et al. 2018).

Stress (psychological stress) is one of the most important psychological factors affecting the development of physical illness and responds to a perceived (real or imaginary) threat to mental, physical, emotional and spiritual health, leading to a series of physiological responses and adaptations (Bendixen et al. 2011). In addition, stress is one of the factors influencing the physical and mental health of the elderlies as elderlies are the most vulnerable cortex against the types of stress according to the experts of social affairs after the youth. Physical weaknesses and chronic illnesses are very stressors, resulting in a lack of personal control and consequently a decrease in the life satisfaction level (Mui and Kang 2006).

Elderlies who live alone often spend most of their time for thinking about their distant children and regretting for their late wife, and this isolation easily leads to depression. However, the lack of stress is an effective indicator of mental health (Heidari et al. 2016). The time lapse is moving quickly for an elderly person who is tired, irritable, and depressed, and considers himself at the end of his journey and is rejected by the community. Accordingly, psychological problems are observed among elderlies in varying degrees and with considerable frequency. Disorders such as depression, anxiety, memory loss, altered sleep patterns, feeling loneliness, and social isolation are some of these problems (Bekhet and Zauszniewski 2012; Eshbaugh et al. 2011).

The major causes of these disorders are the lacks leading to mourning reactions such as the loss of job and social status, and the retirement crisis, the loss of loved ones, leaving home by the children, loss of health, strength and ability, loss of economic stability and ability, lack of concentration, and changes in self-image, which endanger the mental health of the elderly (Kuyper and Fokkema 2010). Some theorists believe that preventing spiritual distress and maintaining and promoting the spiritual well-being are the best ways to maintain mental health and avoid mental disorders such as depression and anxiety among the elderlies (Rejali and Mostajeran 2012). The religious and spiritual sources among the elderlies are considered as important adaptation resources, which should be used during the elderly process.

Further, these resources increase the individuals' life satisfaction and match better with the new conditions (Saydshohadai et al. 2013).

Spiritual care is a unique aspect of nursing care, which cannot be replaced by psychological, social, or religious care, and responds to basic human questions such as meaning in life, pain, suffering, and death (Abolghasem Gorji et al. 2017). The spiritual care facilitates the medical communication, and the nurses can create the power and spiritual support among the individuals and improve their interactions with other family members, environment, nature and superior power by encouraging them to recall the past and emphasizing the special events (Heidari et al. 2017). Early studies indicated that the lack of attention to the spiritual needs of patients in most health care centers leads to increased anxiety, decreased hope, spiritual isolation, and finally, an increase in the length of treatment (Kim et al. 2012). Therefore, professional nursing should pay special attention to this dimension of health, as spiritual care is the basis of a holistic nursing and is considered as a legal duty which should be performed by nurses (Shoja et al. 2013). Accordingly, the present study aimed to investigate the effect of spiritual care on the perceived stress and mental health of the elderlies living in nursing home in Isfahan.

Method

Participants

This is a semi-experimental study with pretest and posttest design with control group. The population consisted of elderlies living in nursing home in Isfahan in February to October 2017. Based on 95% confidence level and 80% test power, and the maximum common variance of 45 units, the sample size was calculated 60 subjects between the intervention and control groups, and the samples were considered 90 people considering the probable decrease. First, among 1200 subjects, 570 qualified samples were selected by using census, among whom 90 subjects were selected by using random sampling method, and divided into the control and intervention groups through random allocation, as each group included 45 subjects.

The inclusion criteria included the age over 60 years old, passing at least 3 months after admission to the nursing home, no cognitive disorders such as dementia and Alzheimer, and the non-use of temporary leave of more than one week during the research period. The exclusion criteria included the unwillingness of the subjects to continue the participation in the study, the occurrence of any cognitive disorders and other acute physical illnesses leading to the hospitalization of elderly in the hospital.

Data Collection

The data collection tools were perceived stress and mental health questionnaires. The demographic questions such as age, sex, level of education, marital status, length of stay, satisfaction with the nursing home and the family members, having specific physical disease were in the first part of the questionnaires. The perceived

stress was measured by the perceived stress scale with 14 questions, developed by Cohen et al. (1983), which is an appropriate tool for determining the extent to which people are aware of their stress in relation to unpredictable and uncontrollable events of life. The Likert scale scores ranged from zero to four, and answers were categorized to zero (never), one (seldom), two (sometimes), three (often), and four (always). It is worth noting that the points of the positive questions (4, 5, 6, 7, 9, 10, and 13) were calculated inversely. In general, the range of scores was between 0 and 56 and scores less than 28 were in the low perceived stress group and equal to or greater than 28 were in the high perceived stress group. In the study of Mansouri et al. (2014), the reliability of the scale was confirmed by Cronbach's alpha coefficient of 0.85. In the present study, the internal consistency of the perceived stress scale with the Cronbach's alpha coefficient of 0.81 was acceptable.

Further, the General Health Questionnaire adapted for the elderlies (GHQ-28) with 28 questions was used to assess the mental health of elderlies. This standard test with four diagnostic scales of physical symptoms, anxiety–insomnia symptoms, disruption in social function and depression symptoms has a diagnostic sensitivity in determining the existence of psychopathology and can identify psychologically vulnerable people well. Each of the four sub-scales of this questionnaire had seven questions. In scoring the questionnaire, four scores for sub-scales and one score for the whole questionnaire were considered by using Likert model. A score of 23 and above represents a lack of mental health, and a score lower than 23 indicates mental health (Kim et al. 2009). In another study, Tehrani et al. (2012) examined the validity and reliability of this questionnaire. In the test–retest method, the reliability coefficient for the whole questionnaire was 0.72 and was significant for the subtest of physical symptoms, anxiety and insomnia, disruption in social function and depression ($P < 0.001$). The reliability coefficient by split-half method for the whole scale was 0.93 and for the aforementioned sub-scales was 0.86, 0.84, 0.68, and 0.77, respectively, and all of the coefficients were significant ($P < 0.001$).

Procedure

Then, the spiritual care package was implemented after completing the research questionnaires. Further, the researcher cooperated with them when subjects could not complete the questionnaire.

In the current study, the active listening and hope induction were individually used daily for each elderly person in the hospitalized ward for 90 days for spiritual care. For this purpose, contributors assisted the researcher after receiving the necessary training. This research evaluates the effectiveness of spiritual care package including active listening and hope induction as the spiritual care interventions in the field of nursing (Bamdad et al. 2013; Mohammadi and Babaee 2011) on mental health among the elderlies, which evaluates its effectiveness on the perceived stress and mental health of the elderly.

In the present study, in order to conduct an active listening intervention, the researcher completely acquainted them with a full study of the case and interviewed the elderly, who were available daily for half an hour and listened to their concerns.

In order to implement the hope intervention, a space was considered in the ward as prayer room to allow the subjects to access this place at any time of the day or night, and the subjects referred to the central prayer room of the sanatorium every Wednesday morning and Thursday night in order to participate in the prayer ceremony. They were asked to write the pleasant memories related to the positive and successful events in their life (occupational, emotional, family success, etc.) every day to increase their hope and emphasize their strengths, and regarding illiterate subjects, the researcher and his colleagues recorded what the subjects reported. These reports were kept by the subjects and reviewed again by the subjects on the next day, and the reported cases were recorded again if they reminded other pleasant memories. In addition, during the week, a 1-h session was held in collaboration with the clergy of the center for subjects to ask their religious-spiritual questions.

Data were analyzed by SPSS package 18.0 for Windows (SPSS, Chicago, Illinois, USA) using descriptive statistics and independent *t* test, ANOVA, Chi-square, and Pearson correlation coefficient.

Results

The results indicated that the majority of the research samples in the intervention group (40%) and the control group (46.66) were in the age range of 60–65 years. Regarding the control and intervention groups, 46.66% of the elderlies were male and 53.33% were female. Other personal profile of the studied units is presented in Table 1.

Based on the results, a significant percentage of the elderlies (68.88%) in the intervention group reported their perceived stress at a high level before the implementation of the spiritual care and 60% of the elderlies in the control group reported that at a high level. As the perceived stress level in both groups did not differ before the implementation of spiritual care ($X^2 = 1.13$ and $P = 0.45$). After implementing the spiritual care, the majority of the elderlies (62.22%) in the intervention group had the low perceived stress level and the majority of the subjects (64.44%) in control group had high perceived stress level. Therefore, after performing spiritual care, there was a significant difference at the perceived stress level of both groups ($X^2 = 3.22$ and $P = 0.001$) (Table 2).

Regarding the mental health level, results demonstrated that the mean score obtained from the general health questionnaire was 10.95 ± 27.2. Additionally, the comparison of the mental health in the intervention and control groups before and after implementing the spiritual care illustrated that before implementing the spiritual care in the intervention and control groups, 51.11% and 57.77% of the participants were suspected to have general disorder, respectively. Based on the results, before the spiritual care implementation, no significant difference was not observed between both groups in terms of mental health ($X^2 = 11.23$ and $P = 0.72$).

After implementing the spiritual care, there was a significant difference in mental health level of both groups, as in the intervention and control groups, 31.11% and 53.33% of the participants were suspected to have general disorder. The results

Table 1 Sample characteristics ($n=90$)

Variable	Intervention *N* (%)	Control *N* (%)
Age		
60–65	18 (40)	21 (46.66)
66–70	16 (35.55)	11 (24.45)
71–75	11 (24.45)	13 (28.89)
Gender		
Female	24 (53.34)	24 (53.34)
Male	21 (46.66)	21 (46.66)
Marital status		
Single	1 (2.22)	4 (8.88)
Married	6 (13.33)	3 (6.66)
Divorced	9 (20)	15 (33.34)
Widow	29 (64.45)	23 (51.12)
Level of education		
Under the diploma	24 (53.34)	16 (35.54)
Diploma	13 (28.88)	12 (26.66)
College education	8 (17.78)	17 (37.78)
Economic situation		
Low income	15 (33.34)	12 (26.66)
Middle income	26 (57.77)	20 (44.45)
High income	4 (8.89)	13 (28.89)
Satisfaction of elderly home		
Yes	14 (31.12)	10 (22.22)
No	13 (28.88)	12 (26.66)
Somewhat	18 (40)	23 (51.12)
Satisfaction of family members		
Yes	9 (20)	7 (15.55)
No	16 (35.56)	24 (53.33)
Somewhat	20 (44.44)	14 (31.12)
Employment status		
Retired	6 (13.33)	9 (20)
Housewife	24 (53.33)	24 (53.34)
Disable	9 (20)	8 (17.77)
Unemployed	6 (13.34)	4 (8.89)

revealed a significant difference in the mental health level of both groups after the implementation of spiritual care ($X^2=6.56$ and $P=0.001$) (Table 3).

Further, a significant negative correlation was reported between perceived stress and mental health ($r=-0.241$ and $P=0.01$). Based on the statistical results, there is a significant relationship only between the general mental health of the elderlies in both groups and gender and educational level ($P<0.05$). A significant and direct relationship was found between perceived stress and age and gender in the

Table 2 Distribution of the perceived stress level before and after intervention

Perceived stress level	Before intervention		After intervention	
	Intervention	Control	Intervention	Control
	N (%)	*N* (%)	*N* (%)	*N* (%)
28 ≤ (high)	31 (68.88)	27 (60)	17 (37.77)	29 (64.44)
28 > (low)	14 (31.11)	40 (18)	28 (62.22)	16 (35.55)
	($P=0.45$, $X^2=1.13$)		($P=0.001$, $X^2=3.22$)	

Table 3 Frequency of mental disorders in the elderly before and after intervention

Mental health (general health status)	Before intervention		After intervention	
	Intervention	Control	Intervention	Control
	N (%)	*N* (%)	*N* (%)	*N* (%)
Healthy	22 (48.88)	19 (42.22)	31 (68.88)	21 (46.66)
Unhealthy	23 (51.11)	26 (57.77)	14 (31.11)	24 (53.33)
	($P=0.72$, $X^2=11.23$)		($P=0.001$, $X^2=6.56$)	

intervention and control groups by using Pearson's correlation coefficient as higher age of the individuals leads to higher perceived stress of individuals ($P<0.001$). On the other hand, the results demonstrated a significant difference between the mean score of the perceived stress and the marital status in both groups since the group of the separated spouse had higher mean score of the perceived stress than that of the other groups ($P<0.05$).

Discussion

The present study aimed to determine the effect of spiritual care on the perceived stress and mental health of elderlies living in the nursing home. In this regard, spirituality therapy plays a significant role in reducing the perceived stress and increasing mental health. The results indicated that the majority of subjects in the intervention group (68.88%) and the control group (60%) had high perceived stress before the spiritual care implementation, indicating the lack of mental health in the elderlies. In addition, after the implementation of spiritual care, a significant difference was observed at the perceived stress level of both groups ($X^2=3.22$ and $P=0.001$). This issue can be related to the problems and complexities with respect to the physical condition of the elderlies, family issues, and loneliness (Wang et al. 2001), or due to the mood disorders in the elderlies such as depression (Tsai et al. 2013). Piazza et al. (2010), in their study, reported that the chronic stresses and negative life events enhance disease among the elderlies, as the simultaneous enhancement of stresses and age leads to the enhancement of disabilities among elderlies.

Although no study, to the best of our knowledge, has been found to assess the effect of spiritual care on perceived stress among the elderlies directly and empirically, the results of the early studies in the field of spiritual care among the other groups and chronic patients were compared with the findings of the current study. Accordingly, the results of the present study are consistent with the findings of other studies, which reported positive effects of care and spiritual activities on the other psychological variables. The results of the descriptive study of Koenig et al. (2004) indicated that the spirituality and spiritual interventions create a unified system among people with chronic diseases through aging the elderlies, which is used throughout life, leading to an increase in the health and life quality and improvement in social and economic factors. Furthermore, the study results of Bamdad et al. (2013) demonstrated that the spiritual care, including hope induction and active listening, can influence the patients' recovery with substance abuse. In addition, the comparison of mental health of the intervention and control groups before and after the implementation of spiritual care illustrated a significant difference in the mental health level of both groups after the implementation of spiritual care ($X^2 = 6.56$ and $P = 0.001$). In line with the findings of the current study, Piazza et al. (2010) in their study on the relationship between religion and mental health concluded that the religious beliefs reduce the incidence of depression, suicide, and drug and alcohol abuse, regardless of race, income, and age.

In the same vein, Heidari et al. (2017) conducted a study on the effect of spiritual care on despair and depression among suicide attempters and found a significant difference at the depression and anxiety of the intervention and control groups after the implementation of spiritual care. Several studies indicated a relationship between spirituality and health care and clinical implications and found that the lack of attention to the spiritual needs of the patient in most health care centers results in poor treatment outcomes. Subsequently, help seekers require a long period of care and treatment in the course of recovery and rehabilitation, as well as the special spiritual needs associated with their illness process. Sartipzadeh et al. (2016) reported that group spiritual therapy increases the tolerance of the elderlies living in the nursing home.

The results with respect to the mental health level indicated that the mean score obtained from the general health questionnaire was between 10.95 and 27.2. The existence of 15–56% of mental disorders in the elderly period has been proven in many studies (Barati et al. 2012; Nejati et al. 2013). Considering the studies conducted on elderly, spirituality and spiritual interventions are considered as the main variables in maintaining and improving the health of the elderlies. Given the experience of emptiness and spiritual isolation among the elderlies, spiritual care is regarded as a key element in contributing to achieve individual integrity by improving communication with oneself, environment and nature, and a superior power (Khoshknab et al. 2010). Spiritual care is recognized as an important source among patients to deal with the distress caused by the disease. In this regard, Hammond (2003), in their review study, reported that spiritual care has a direct and significant relationship with the health improvement of the elderlies in most of the studies related to health, religion, and spirituality.

The results of the present study revealed a significant and direct relationship between perceived stress and age in the intervention and control groups. This finding is in line with the results of the Bastani et al. (2009) and Malek et al. (2008). The results of their study indicated that age is an important determinant in the stress scores of individuals, which is likely to be due to the effect of increase in age on some variables such as employment, marital status, economic–social status, loneliness, and physical abilities.

In the present study, there is a significant difference between the mean score of the perceived stress and marital status in both groups. In the same vein, Bastani et al. (2009) recognized the marital status as a factor associated with the perceived stress among elderly people with diabetes. In another study on a group of American elderlies, Muramatsu et al. (2010) found that single, widowed, or separated elderlies have less mental health, compared to the married elderlies.

The current study indicated a significant relationship between gender and stress, as in all dimensions, women had more stress than men. It seems that the biological and physiological differences, economic and social factors, educational level, violence and the status of women in the society intensify this disorder. In the same vein, Mumford et al. (2000) conducted a study in India and concluded that the environmental stresses followed by disabilities in women were more than men.

In addition, they found a significant relationship between mental health and gender of the elderlies, as mental health of men is better than that of women which is consistent with the results of some studies (Manzouri et al. 2010; Saberian et al. 2004), due to the structural factors of the society and the role and social bases of men in the society. As the society provides power and more opportunity for men, they have a higher sense of self-efficacy followed by a better mental health.

Further, the present study indicated a significant relationship between educational level and mental health since people with higher educational level had better mental health status. In this regard, Saberian et al. (2004) and Hadianfard and Hadianfard (2004) reported a significant relationship between educational level and mental health score of the elderlies because educated people spend their leisure time of aging period with more diverse hobbies and have more enjoyable life. It seems that the mental health of elderlies naturally increases by enhancing their literacy level and assigning more important roles and consequently, accepting more important and wider responsibilities within the community.

In this research, there were some limitations such as illiteracy of the majority of elderlies and the probability of the misinterpretation of elderlies from the test questions. Therefore, it is suggested to investigate the effect of spiritual care on the psychological dimensions of the elderlies living in the home, the other age groups, patients with chronic diseases, and hospitalized patients. Finally, the use of other spiritual care packages to provide for elderlies is recommended for future studies.

Conclusion

Based on the results, the spiritual care has been effective in reducing the perceived stress and increasing the mental health of the elderlies living in the sanatorium. Therefore, the mental health of elderlies can be increased by applying programs

tailored to the needs of the elderlies and incorporating spiritual care interventions in the care program in the therapeutic and rehabilitation centers. Thus, all institutions and organizations with important goals like healthy elderly should pay more attention to the importance of the role of spiritual health in the care to maintain the mental health. In the same vein, they can take an important step in achieving their therapeutic and care objectives by knowing the spiritual needs and encouraging the use of spiritual interventions to implement holistic care.

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Compliance with Ethical Standards

Conflict of interest The authors declare they have no potential conflicts of interest.

Ethical Approval After selecting the eligible participant, the researcher was introduced to them and the objectives of the study were elaborated for the participants. The informed consent was obtained from the subjects, and they were assured that their information will remain confidential.

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